

In re Patent Application of:
CAPPELLETTI ET AL.
Serial No. 09/699,041
Filing Date: October 27, 2000

REMARKS

Applicants would like to thank the Examiner for the thorough examination of the present application. Applicants would like to thank the Examiner for allowing Claims 22-34, and for correctly indicating as allowable the subject matter of dependent Claims 8-20 and 40-42. The arguments supporting patentability of the claims are presented in detail below.

I. The Claims Are Patentable

The Examiner rejected independent Claims 7 and 35 over the Argyroudis patent in view of the Santore et al. patent. The present invention, as recited in independent Claim 7, for example, is directed to a data transceiver station comprising a modem to be connected to an electrical power line for receiving digital data. A microprocessor is connected to the modem for receiving demodulated digital data therefrom according to a Packet Mode transmission or a Bit Mode transmission.

An interface circuit is connected between the microprocessor and the modem. The interface circuit switches between a Packet Mode and a Bit Mode during transfer of the demodulated digital data to the microprocessor. The switching is based upon whether the received digital data is a Packet Mode transmission or a Bit Mode transmission. The data transceiver station in accordance with the claimed invention advantageously joins together the advantages of a Packet Mode transmission with the advantages of a Bit Mode transmission received over an electrical power line.

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Independent method Claim 35 is similar to independent device Claim 7, and also recites that the digital data is exchanged over an electrical power line.

Referring now to FIG. 2 of the Argyroudis patent, the Examiner has characterized the data transceiver station as comprising a modem 226, 234 connected to a transmission line 228, 230, and a microprocessor 214 connected to the modem. The transmission line 228, 230 is an electrical power line. An interface circuit 224 is connected between the microprocessor 214 and the modem 226, 234.

As correctly noted by the Examiner, Argyroudis fails to disclose that the interface circuit 224 is capable of operating between a Packet Mode transmission and a Bit Mode transmission. However, the Examiner notes that the interface circuit 224 "may further comprise an embedded UART for transmitting at higher data rates via the twisted pair transceiver 234." (Column 12, lines 39-42.) The Examiner has taken the position that Argyroudis is capable of communicating between two modes of data rates. The higher data rate is via the twisted pair transceiver 234 and the lower data rate is via the power line transceiver 226.

The Examiner cited the Santore et al. patent as disclosing a communications system having an interface card 30d operating between a Packet Mode transmission and a Bit Mode transmission. Even though Santore et al. discloses that the interface card 30d is connected to a microprocessor bus 20 and not an electrical power line, the Examiner has taken the position that it would have been obvious to modify the interface circuit 224 in Argyroudis based upon Santore et al.

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to extend the operating capability of the data transceiver station disclosed therein since it could operate in two modes - i.e., a Packet Mode and a Bit Mode - over the electrical power line 228, 230.

In other words, the Examiner has taken the position that since Argyroudis is capable of operating in different modes, and since Santore et al. discloses that the interface card 30d supports a Packet Mode transmission and a Bit Mode transmission over a single communications bus, it would have been obvious to include the function of the interface card 30d from Santore et al. in the interface circuit 224 from Argyroudis.

The Applicants respectfully submit that such a combination destroys the intended operability of the interface circuit 224 in Argyroudis. The interface circuit 224 in Argyroudis discloses that two different modes of data rates are received over two different paths. The higher data rate is received over a twisted pair line 232, whereas the lower data rate is received over the electrical power lines 228, 230 and depending on the installation site, one or both of these paths may be used. Reference is directed to column 12, lines 53-55 of Argyroudis, which provides:

"In response to the control or information messages, CEBus interface 224 generates PLC encoded messages for transmission by either twisted pair transceiver 234 or power line transceiver 226, or both."
(Emphasis added.)

Argyroudis thus discloses that different data rate messages may be sent over different paths depending on the

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installation site. Reference is also directed to column 12, lines 13-23 of Argyroudis, which provides:

"In the exemplary embodiment shown in FIG. 2, CEBus interface 224, power line transceiver 226, and twisted pair transceiver 234 are shown as being an integral part of remote metering unit 102. However, it should be noted that these "gateway" devices may be located at HBU 122 (see FIG. 1). Additionally, it should be noted that whether twisted pair transceiver 234 or power line transceiver 226 are located integrally to remote metering unit 102, or whether they would be present at all, may depend on the nature and configuration of the installation site." (Emphasis added.)

Argyroudis thus teaches away from using the same path for supporting the two different modes of data rates as suggested by the Examiner. Instead, Argyroudis teaches that one or both paths (i.e., twisted pair line 232 or electrical power lines 228, 230) may be used to exchange information based upon the installation site. The Applicants submit that modifying the interface circuit 224 from Argyroudis to include the dual mode function (i.e., Packet Mode transmission and a Bit Mode transmission) of the interface card 30d from Santore et al. destroys the intended operability of the twisted pair Transceiver 234 and the power line transceiver 226.

It also appears that the Examiner is using impermissible hindsight reconstruction to modify Argyroudis in view of Santore et al. in an attempt to produce the claimed invention. The Applicants respectfully assert that obvious cannot be established by combining the teachings of Argyroudis

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in view of Santore et al. in an attempt to produce the claimed invention without some proper prior art teaching, suggestion or incentive supporting such a combination.

The Applicants respectfully submit that Argyroudis teaches away from such a combination because the digital data received by the modem 234, 226 may be received over an electrical power line 228, 239 and over a twisted line pair 232 depending on the installation site.

Moreover, in Santore et al., the disclosed interface card 30d supporting Packet Mode transmission and Bit Mode transmission interface is not connected between a modem and a processor, as in the claimed invention. Instead, the interface card 30d is based upon multiple RISC processors providing packet switching and LAN internetworking, and is connected between a backplane bus 20 and a LAN network, as illustrated in FIG. 1. The prior art references, individually, or in combination, do not teach or suggest such a combination.


Accordingly, it is submitted that independent Claim 7 is patentable over Argyroudis in view of Santore et al. Independent Claim 35 is similar to independent Claim 7. Therefore, it is also submitted that this claim is also patentable over Argyroudis in view of Santore et al. In view of the patentability of the independent Claims 7 and 35, it is submitted that their dependent claims, which recite yet further distinguishing features of the invention, are also patentable. These dependent claims require no further discussion herein.

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CONCLUSION

In view of the arguments provided herein, it is submitted that all the claims are patentable. Accordingly, a Notice of Allowance is requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,


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CERTIFICATE OF FACSIMILE TRANSMISSION

I HEREBY CERTIFY that the foregoing correspondence has been forwarded via facsimile number 703-872-9306 to the Commissioner for Patents on this 14 day of September, 2004.

